

2U IP-SAN Storage Appliance

# Highlights

- 2U IP-SAN & NAS storage appliance with StorTrends iTX 6.0 Data Storage Software
- 12 Hot-swappable SATA Drives for a variety of capacity configurations:
- 24, 48, 72, 96, 120 or 144 TB of raw storage capacity with Enterprise SATA drives
- Advanced Snapshot
- Redirect on Write (ROW)
- Up to 1022 snapshots (R/O and R/W) per volume
- Up to 16384 snapshots per box (R/O & R/W)
- Snapshot scheduling for SAN & NAS
- Rollback from any snapshot
- Random snapshot deletion
- Volume Replication
- Asynchronous
- Snapshot-assisted
- WAN-Optimization Data Services (WDS) featuring Deduplication, Encryption, and Link Acceleration
- Software RAID support: RAID levels 5, 6, 50, 60 & 10
- Network Teaming
- Storage Resource
   Management (SRM) with
   detailed reporting on usage
   and performance
- Enhanced Reliability with 550W Redundant Power Supply and Smart UPS Support

The StorTrends® 2510i is an affordable 2U, rack-mount storage appliance that offers support for both block and file data. It merges Ethernet-based Storage Area Networks (IP-SAN) and Network Attached Storage (NAS) on a single storage platform.

The StorTrends 2510i supports iSCSI, enabling block applications like Microsoft® Exchange and Oracle® to be deployed or stored on the same server as traditional file services and storage. This system is designed with performance in mind, and includes features for enterprise-level storage management such as Advanced Snapshots, Volume Replication, Failover, WAN optimization and much more.

StorTrends block application true enterprise-level features to departmental and SMB users. The StorTrends 2510i offers twelve hotswappable drive bays with advanced SATA support, as well as highly distinguishing software features. Dual-dialect StorTrends® iTX software enables transfer of both block and file data over the existing Ethernet network, along with a host of advanced features that until now only existed in systems costing many times more than the StorTrends 2510i.

The Volume replication feature of the StorTrends 2510i allows data to be stored on multiple StorTrends appliances at multiple sites, for high

availability and disaster recovery in the event of a catastrophe.

StorTrends' Advanced Snapshot capability features Redirect-on-Write(ROW) technology with near-zero performance degradation when writing or rolling back snapshots. Administrators can schedule up to 1,022 read-write and 1,022 read-only snapshots per volume, and up to 16,384 snapshots per box. A maximum of 256 volumes per appliance is supported.

Asynchronous replication bundles I/Os within snapshots and sends them to the remote server, boosting

network utilization efficiency and reducing bandwidth cost. When combined with the revolutionary WAN Data Services (WDS) feature included in the Asynchronous Replication module, the system employs data

deduplication, compression and link optimization to reduce data transmission and bandwidth usage by several factors over conventional replication speeds.

For improved reliability and disaster prevention, the StorTrends 2510i features a redundant power supply, as well as Smart UPS support, which allows the appliance to seamlessly switch over to UPS power in the event of a power failure and initiate a graceful shutdown.

StorTrends appliances can be managed by the integrated ManageTrends™ web-based GUI, which provides discovery and management of multiple StorTrends appliances deployed across the network.

## **IP-SAN 2U Storage Appliance with StorTrends® iTX Data Storage Software**

### **System Features & Highlights:**

Transfer block and file data over existing Ethernet network

Sturdy 2U rack mountable chassis **Redundant Power Supply Modules** Supports major file transfer protocols

WAN-optimization Data Service (WDS)

**Network Teaming** Advanced Snapshot Capability Volume Replication, Storage Alerts Support for 256 volumes per appliance Enterprise SATA HDD support with hot swap **UPS Support ADS/NIS Support** 

## **Hardware Specifications:**

#### Form Factor

2U Chassis with 550W Redundant Power Supply **On-Board CPU** 

Intel Xeon Silver 4116 12-Core 2.10 GHz Processor Memory

16GB RAM

#### **Drive Interface**

## **Drive & Storage Capacity**

Twelve 3.5" Hot-swappable SATA Drive Bays 2TB, 4TB, 6TB, 8TB, 10TB or 12TB capacity hard drives are supported, for 24TB, 48TB, 72TB, 96TB, 120TB and 144TB

physical storage capacity per appliance

#### **Status LEDs**

6 LED Indicators (Power, Unit Identification (UID), Overheat /Fan Failure, Network Activity (x2), HDD

Hard Drive LED Indicators: Green (for drive activity), Red (for drive failure)

### **Expansion Slots**

Two PCI-Express Expansion Slots

# **Data Management Ports**

4x Single-port Gigabit PCI-Express Ethernet Controller

Optional Dual-port 10 G Ethernet (SFP+ or Copper)

### **Other Connectors**

4x USB 3.0 Ports

## **Power Specifications**

550W Redundant Power Supply

AC Voltage (100 - 240V, 60-50Hz, 6.3 - 3.2 Amp)

### **Cooling Specifications**

Three Cooling Fans with status & tachometer monitoring

Cooling Air Shroud included

#### **Operating Environment**

Operating Temperature: 10°C to 40°C Operating Relative Humidity: 8% to 80% (noncond.)

## **Physical Characteristics**

Dimensions: 3.5" (89 mm) H x 17.2" (437 mm) W x 25.5" (647 mm) D

Weight: 52 lbs. (23.6 kg)

# **StorTrends® iTX Software Specifications:**

### **Volume Replication**

Asynchronous Snapshot-assisted - WAN Data Services (WDS) featuring Deduplication, Encryption, and Link Acceleration One-to-Many / Many-to-One Replication

#### **Advanced Snapshots**

Up to 1,022 read-only and 1,022 writeable snapshots per volume with near-zero performance degradation

Redirect on Write (ROW) Snapshot Technology **Random Snapshot Deletion** 

Snapshot mounting for file recovery

Snapshot Scheduling

Instantaneous rollback to any snapshot

Backup VSS-based backup support for Windows® Servers iSCSI Tape Backup Support SQL single line

Exchange single mailbox recovery

#### Networking

Windows® (CIFS) and Linux (NFS) file protocols TCP/IP, FTP, HTTP, NIC teaming – Round Robin, **Transmit Load** 

Balancing, Adaptive Load Balancing and 802.3AD link aggregation

### iSNS Configuration

Up to 16 iSNS servers are supported Compatible with MS iSNS Server v3.0 and later iSNS client supporting Draft 22 of iSNS specification

#### Security

ACL security implementation supports: Local users,

iSCSI Target Configurations

iSCSI Qualified Name (ign) format

Enable/Disable individual network ports for iSCSI traffic

iSCSI target supporting iSCSI RFC 3720

Tight iSCSI and iSNS integration

Multiple levels of authentication: Mutual CHAP,

name/password CHAP authentication & iSCSI initiator

iSCSI Portal Tag configuration from UI View iSCSI data and error statistics

### Management

Command line interface through RS232 & SSH Integrated web-based management Tool for easy customization and themes

### **Event Management**

Detailed Event Log

SNMP, SNMP Traps (up to 4 destinations) **Email Alerts** 

### Storage Data Management

Storage Resource Management / Storage Reports LUN (Logical Unit Number) creation & management

LUN dynamic volume expansion Dynamic NAS volume expansion Software RAID levels 5, 6, 50, 60 & 10

Remote Management

CLI (SSH)

# **UPS Support**

Universal UPS Support; Supports Windows® OS/ iTX/ Linux as UPS slaves and many UPS makes & models

### **Applications Supported**

Oracle®, SQL, Microsoft® Exchange, VMware®, etc.

# **Advanced Features**

# **Advanced Snapshot Technology**

AmZetta's Advanced Snapshot technology enables up to 16, 384 snapshots (R/O and R/W) at the block or file level.

It also allows for rapid creation and deletion of a snapshot, permitting faster, more secure back-ups than ever before.

Advanced Snapshot technology focused on performance, enabling customers to mount, review and instantaneously roll back to a snapshot with near-zero performance degradation.

# **Snapshot-assisted Replication**

This technology allows chronological replication snapshots on a remote machine, with the ability to organize by application-based consistency groups.

In fail-over to a secondary appliance, StorTrends iTX will automatically rollback to the latest consistent snapshot.

# **WAN Optimization Data** Services (WDS)

StorTrends utilizes several techniques sophisticated to optimize the speed of long distance WAN connections.

It uses an intelligent mix of standards-based transport protocols to the overcome inefficiencies and high latencies of TCP protocols in WANs and provide excellent bandwidth utilization. Additional performance gains are made through data reduction technologies such as compression, data deduplication and bandwidth throttling.

